What is claimed is:

1. An X-ray cassette for computed radiography having a form of a hollow box, filled in the inner part with air, an inert gas or a liquid, said box comprising top and bottom, front and rear and lateral sides, said top and bottom sides having width dimensions, between said lateral sides; and depth dimensions, between said front and rear sides, which are substantially greater than the dimensions of said front, rear and lateral sides, between said top and bottom sides, wherein said bottom side and said front,rear and lateral sides have a higher material stiffness than the top side and wherein said top side is a deformable carrier or support material, characterized in that said support material is covered with a storage or stimulable phosphor sheet layer.

2. An X-ray cassette according to claim 1, wherein said hollow box, when filled with air, is further provided with an opening in one of the front, rear or lateral sides.

3. An X-ray cassette according to claim 1, wherein said phosphor sheet layer is a binderless storage phosphor layer.

4. An X-ray cassette according to claim 2, wherein said phosphor sheet layer is a binderless storage phosphor layer.

5. An X-ray cassette according to claim 3, wherein said phosphor sheet layer comprises a binderless needle shaped CsX:Eu phosphor, wherein X represents a halide selected from the group consisting of Br and Cl.

6. An X-ray cassette according to claim 4, wherein said phosphor sheet layer comprises a binderless needle shaped CsX:Eu phosphor, wherein X represents a halide selected from the group consisting of Br and Cl.

7. An X-ray cassette according to claim 1, wherein a protective layer is provided at least as as an outermost layer covering said storage phosphor layer and, optionally, as an auxiliary layer between said storage phosphor layer and said support.

8. An X-ray cassette according to claim 2, wherein a protective layer is provided at least as as an outermost layer covering said storage phosphor layer and, optionally, as an auxiliary layer between said storage phosphor layer and said support.

9. An X-ray cassette according to claim 3, wherein a protective layer is provided at least as as an outermost layer covering said storage phosphor layer and, optionally, as an auxiliary layer between said storage phosphor layer and said support.

10. An X-ray cassette according to claim 4, wherein a protective layer is provided at least as as an outermost layer covering said storage phosphor layer and, optionally, as an auxiliary layer between said storage phosphor layer and said support.

11. An X-ray cassette according to claim 5, wherein a protective layer is provided at least as as an outermost layer covering said storage phosphor layer and, optionally, as an auxiliary layer between said storage phosphor layer and said support.

12. An X-ray cassette according to claim 6, wherein a protective layer is provided at least as as an outermost layer covering said storage phosphor layer and, optionally, as an auxiliary layer between said storage phosphor layer and said support.

13. An X-ray cassette according to claim 7 wherein said protective layer and said optionally present auxiliary layer, is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

14. An X-ray cassette according to claim 8 wherein said protective layer and said optionally present auxiliary layer, is a layer of

parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

15. An X-ray cassette according to claim 9 wherein said protective layer and said optionally present auxiliary layer, is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

16. An X-ray cassette according to claim 10 wherein said protective layer and said optionally present auxiliary layer, is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

17. An X-ray cassette according to claim 11 wherein said protective layer and said optionally present auxiliary layer, is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

18. An X-ray cassette according to claim 12 wherein said protective layer and said optionally present auxiliary layer, is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

19. An X-ray cassette according to claim 1, wherein said deformable carrier or support material is convex, concave or plan parallel with respect to the bottom side of said cassette.

20. An X-ray cassette according to claim 2, wherein said deformable carrier or support material is convex, concave or plan parallel with respect to the bottom side of said cassette.

21. An X-ray cassette according to claim 3, wherein said deformable carrier or support material is convex, concave or plan parallel with respect to the bottom side of said cassette.

22. An X-ray cassette according to claim 4, wherein said deformable carrier or support material is convex, concave or plan parallel with respect to the bottom side of said cassette.

23. An X-ray cassette according to claim 5, wherein said deformable carrier or support material is convex, concave or plan parallel with respect to the bottom side of said cassette.

24. An X-ray cassette according to claim 6, wherein said deformable carrier or support material is convex, concave or plan parallel with respect to the bottom side of said cassette.

25. An X-ray cassette according to claim 7, wherein said deformable carrier or support material is convex, concave or plan parallel with respect to the bottom side of said cassette.

26. An X-ray cassette according to claim 8, wherein said deformable carrier or support material is convex, concave or plan parallel with respect to the bottom side of said cassette.

27. An X-ray cassette according to claim 13, wherein said deformable carrier or support material is convex, concave or plan parallel with respect to the bottom side of said cassette.

28. An X-ray cassette according to claim 14, wherein said deformable carrier or support material is convex, concave or plan parallel with respect to the bottom side of said cassette.

29. Method of deforming the carrier or support material of an X-ray cassette according to claim 1, by the steps of
- mounting said cassette in a scanning unit or apparatus;
- connecting the inlet opening of the cassette with a pump;
- changing pressure by sucking from or adding to the cassette air, an inert gas or a liquid.

30. Method of deforming the carrier or support material of an X-ray cassette according to claim 2, by the steps of

- mounting said cassette in a scanning unit or apparatus;
- connecting the inlet opening of the cassette with a pump;
- changing pressure by sucking from or adding to the cassette air, an inert gas or a liquid.

31. Method of deforming the carrier or support material of an X-ray cassette according to claim 3, by the steps of
- mounting said cassette in a scanning unit or apparatus;
- connecting the inlet opening of the cassette with a pump;
- changing pressure by sucking from or adding to the cassette air, an inert gas or a liquid.

32. Method of deforming the carrier or support material of an X-ray cassette according to claim 4, by the steps of
- mounting said cassette in a scanning unit or apparatus;
- connecting the inlet opening of the cassette with a pump;
- changing pressure by sucking from or adding to the cassette air, an inert gas or a liquid.

33. Method of deforming the carrier or support material of an X-ray cassette according to claim 5, by the steps of
- mounting said cassette in a scanning unit or apparatus;
- connecting the inlet opening of the cassette with a pump;
- changing pressure by sucking from or adding to the cassette air, an inert gas or a liquid.

34. Method of deforming the carrier or support material of an X-ray cassette according to claim 6, by the steps of
- mounting said cassette in a scanning unit or apparatus;
- connecting the inlet opening of the cassette with a pump;
- changing pressure by sucking from or adding to the cassette air, an inert gas or a liquid.

35. Method of deforming the carrier or support material of an X-ray cassette according to claim 7, by the steps of
- mounting said cassette in a scanning unit or apparatus;
- connecting the inlet opening of the cassette with a pump;

- changing pressure by sucking from or adding to the cassette air, an inert gas or a liquid.

36. Method of deforming the carrier or support material of an X-ray cassette according to claim 8, by the steps of
- mounting said cassette in a scanning unit or apparatus;
- connecting the inlet opening of the cassette with a pump;
- changing pressure by sucking from or adding to the cassette air, an inert gas or a liquid.

37. Method of deforming the carrier or support material of an X-ray cassette according to claim 13, by the steps of
- mounting said cassette in a scanning unit or apparatus;
- connecting the inlet opening of the cassette with a pump;
- changing pressure by sucking from or adding to the cassette air, an inert gas or a liquid.

38. Method of deforming the carrier or support material of an X-ray cassette according to claim 14, by the steps of
- mounting said cassette in a scanning unit or apparatus;
- connecting the inlet opening of the cassette with a pump;
- changing pressure by sucking from or adding to the cassette air, an inert gas or a liquid.

39. Method according to claim 29, wherein changing pressure is applied to such an extent that the stimulable phosphor sheet layer is deformed in that its curvature is minimized, wherein said curvature is continuously measured by a device or apparatus connected with or present nearby the scanning unit or apparatus.

40. Method according to claim 30, wherein changing pressure is applied to such an extent that the stimulable phosphor sheet layer is deformed in that its curvature is minimized, wherein said curvature is continuously measured by a device or apparatus connected with or present nearby the scanning unit or apparatus.

41. Method according to claim 31, wherein changing pressure is applied to such an extent that the stimulable phosphor sheet layer is deformed in that its curvature is minimized, wherein said curvature is continuously measured by a device or apparatus connected with or present nearby the scanning unit or apparatus.

42. Method according to claim 32, wherein changing pressure is applied to such an extent that the stimulable phosphor sheet layer is deformed in that its curvature is minimized, wherein said curvature is continuously measured by a device or apparatus connected with or present nearby the scanning unit or apparatus.

43. Method according to claim 33, wherein changing pressure is applied to such an extent that the stimulable phosphor sheet layer is deformed in that its curvature is minimized, wherein said curvature is continuously measured by a device or apparatus connected with or present nearby the scanning unit or apparatus.

44. Method according to claim 34, wherein changing pressure is applied to such an extent that the stimulable phosphor sheet layer is deformed in that its curvature is minimized, wherein said curvature is continuously measured by a device or apparatus connected with or present nearby the scanning unit or apparatus.

45. Method according to claim 35, wherein changing pressure is applied to such an extent that the stimulable phosphor sheet layer is deformed in that its curvature is minimized, wherein said curvature is continuously measured by a device or apparatus connected with or present nearby the scanning unit or apparatus.

46. Method according to claim 36, wherein changing pressure is applied to such an extent that the stimulable phosphor sheet layer is deformed in that its curvature is minimized, wherein said curvature is continuously measured by a device or apparatus connected with or present nearby the scanning unit or apparatus.

47. Method according to claim 37, wherein changing pressure is applied to such an extent that the stimulable phosphor sheet layer is deformed in that its curvature is minimized, wherein said curvature is continuously measured by a device or apparatus connected with or present nearby the scanning unit or apparatus.

48. Method according to claim 38, wherein changing pressure is applied to such an extent that the stimulable phosphor sheet layer is deformed in that its curvature is minimized, wherein said curvature is continuously measured by a device or apparatus connected with or present nearby the scanning unit or apparatus.

49. Method according to claim 39, wherein changing pressure is stopped as soon as curvature has been measured to have been minimized, followed by starting scanning of the stimulable phosphor plate.

50. Method according to claim 40, wherein changing pressure is stopped as soon as curvature has been measured to have been minimized, followed by starting scanning of the stimulable phosphor plate.

51. Method according to claim 41, wherein changing pressure is stopped as soon as curvature has been measured to have been minimized, followed by starting scanning of the stimulable phosphor plate.

52. Method according to claim 42, wherein changing pressure is stopped as soon as curvature has been measured to have been minimized, followed by starting scanning of the stimulable phosphor plate.

53. Method according to claim 43, wherein changing pressure is stopped as soon as curvature has been measured to have been minimized, followed by starting scanning of the stimulable phosphor plate.

54. Method according to claim 44, wherein changing pressure is stopped as soon as curvature has been measured to have been minimized, followed by starting scanning of the stimulable phosphor plate.

55. Method according to claim 45, wherein changing pressure is stopped as soon as curvature has been measured to have been minimized, followed by starting scanning of the stimulable phosphor plate.

56. Method according to claim 46, wherein changing pressure is stopped as soon as curvature has been measured to have been minimized, followed by starting scanning of the stimulable phosphor plate.

57. Method according to claim 47, wherein changing pressure is stopped as soon as curvature has been measured to have been minimized, followed by starting scanning of the stimulable phosphor plate.

58. Method according to claim 48, wherein changing pressure is stopped as soon as curvature has been measured to have been minimized, followed by starting scanning of the stimulable phosphor plate.

59. Method according to claim 39, wherein changing pressure is stopped by stopping the pump as soon as curvature has been measured to have been minimized up to a tolerance level of not more than 100 μm.

60. Method according to claim 40, wherein changing pressure is stopped by stopping the pump as soon as curvature has been measured to have been minimized up to a tolerance level of not more than 100 μm.

61. Method according to claim 41, wherein changing pressure is stopped by stopping the pump as soon as curvature has been

measured to have been minimized up to a tolerance level of not more than 100 μm.

62. Method according to claim 42, wherein changing pressure is stopped by stopping the pump as soon as curvature has been measured to have been minimized up to a tolerance level of not more than 100 μm.

63. Method according to claim 43, wherein changing pressure is stopped by stopping the pump as soon as curvature has been measured to have been minimized up to a tolerance level of not more than 100 μm.

64. Method according to claim 44, wherein changing pressure is stopped by stopping the pump as soon as curvature has been measured to have been minimized up to a tolerance level of not more than 100 μm.

65. Method according to claim 45, wherein changing pressure is stopped by stopping the pump as soon as curvature has been measured to have been minimized up to a tolerance level of not more than 100 μm.

66. Method according to claim 46, wherein changing pressure is stopped by stopping the pump as soon as curvature has been measured to have been minimized up to a tolerance level of not more than 100 μm.

67. Method according to claim 47, wherein changing pressure is stopped by stopping the pump as soon as curvature has been measured to have been minimized up to a tolerance level of not more than 100 μm.

68. Method according to claim 48, wherein changing pressure is stopped by stopping the pump as soon as curvature has been measured to have been minimized up to a tolerance level of not more than 100 μm.

69. Method for producing an X-ray cassette in form of a hollow box according to claim 1, by the steps of:
- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a storage phosphor layer on said top side,
- vacuum depositing a protective parylene layer onto said storage phosphor layer.

70. Method for producing an X-ray cassette in form of a hollow box according to claim 2, by the steps of:
- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a storage phosphor layer on said top side,
- vacuum depositing a protective parylene layer onto said storage phosphor layer.

71. Method for producing an X-ray cassette in form of a hollow box according to claim 3, by the steps of:
- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a storage phosphor layer on said top side,
- vacuum depositing a protective parylene layer onto said storage phosphor layer.

72. Method for producing an X-ray cassette in form of a hollow box according to claim 4, by the steps of:
- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a storage phosphor layer on said top side,
- vacuum depositing a protective parylene layer onto said storage phosphor layer.

73. Method for producing an X-ray cassette in form of a hollow box according to claim 5, by the steps of:
- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a storage phosphor layer on said top side,

- vacuum depositing a protective parylene layer onto said storage phosphor layer.

74. Method for producing an X-ray cassette in form of a hollow box according to claim 6, by the steps of:
- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a storage phosphor layer on said top side,
- vacuum depositing a protective parylene layer onto said storage phosphor layer.

75. Method for producing an X-ray cassette in form of a hollow box according to claim 7, by the steps of:
- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a storage phosphor layer on said top side,
- vacuum depositing a protective parylene layer onto said storage phosphor layer.

76. Method for producing an X-ray cassette in form of a hollow box according to claim 8, by the steps of:
- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a storage phosphor layer on said top side,
- vacuum depositing a protective parylene layer onto said storage phosphor layer.

77. Method for producing an X-ray cassette in form of a hollow box according to claim 13, by the steps of:
- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a storage phosphor layer on said top side,
- vacuum depositing a protective parylene layer onto said storage phosphor layer.

78. Method for producing an X-ray cassette in form of a hollow box according to claim 14, by the steps of:

- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a storage phosphor layer on said top side,
- vacuum depositing a protective parylene layer onto said storage phosphor layer.

79. Method for producing an X-ray cassette in form of a hollow box according to claim 1, by the steps of :
- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a protective parylene layer onto said top side,
- providing a storage phosphor layer having been coated or deposited onto a support from which it is releasable,
- laminating said storage phosphor layer onto said parylene layer, which covers the said hollow box,
- removing said support from which it is releasable,
- covering said phosphor layer with a protective layer.

80. Method for producing an X-ray cassette in form of a hollow box according to claim 2, by the steps of :
- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a protective parylene layer onto said top side,
- providing a storage phosphor layer having been coated or deposited onto a support from which it is releasable,
- laminating said storage phosphor layer onto said parylene layer, which covers the said hollow box,
- removing said support from which it is releasable,
- covering said phosphor layer with a protective layer.

81. Method for producing an X-ray cassette in form of a hollow box according to claim 3, by the steps of :
- providing a hollow box having plan parallel bottom and top sides,

- vacuum depositing a protective parylene layer onto said top side,
- providing a storage phosphor layer having been coated or deposited onto a support from which it is releasable,
- laminating said storage phosphor layer onto said parylene layer, which covers the said hollow box,
- removing said support from which it is releasable,
- covering said phosphor layer with a protective layer.

82. Method for producing an X-ray cassette in form of a hollow box according to claim 4, by the steps of :
- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a protective parylene layer onto said top side,
- providing a storage phosphor layer having been coated or deposited onto a support from which it is releasable,
- laminating said storage phosphor layer onto said parylene layer, which covers the said hollow box,
- removing said support from which it is releasable,
- covering said phosphor layer with a protective layer.

83. Method for producing an X-ray cassette in form of a hollow box according to claim 5, by the steps of :
- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a protective parylene layer onto said top side,
- providing a storage phosphor layer having been coated or deposited onto a support from which it is releasable,
- laminating said storage phosphor layer onto said parylene layer, which covers the said hollow box,
- removing said support from which it is releasable,
- covering said phosphor layer with a protective layer.

84. Method for producing an X-ray cassette in form of a hollow box according to claim 6, by the steps of :
- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a protective parylene layer onto said top side,
- providing a storage phosphor layer having been coated or deposited onto a support from which it is releasable,
- laminating said storage phosphor layer onto said parylene layer, which covers the said hollow box,
- removing said support from which it is releasable,
- covering said phosphor layer with a protective layer.

85. Method for producing an X-ray cassette in form of a hollow box according to claim 7, by the steps of :
- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a protective parylene layer onto said top side,
- providing a storage phosphor layer having been coated or deposited onto a support from which it is releasable,
- laminating said storage phosphor layer onto said parylene layer, which covers the said hollow box,
- removing said support from which it is releasable,
- covering said phosphor layer with a protective layer.

86. Method for producing an X-ray cassette in form of a hollow box according to claim 8, by the steps of :
- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a protective parylene layer onto said top side,
- providing a storage phosphor layer having been coated or deposited onto a support from which it is releasable,
- laminating said storage phosphor layer onto said parylene

layer, which covers the said hollow box,
- removing said support from which it is releasable,
- covering said phosphor layer with a protective layer.

87. Method for producing an X-ray cassette in form of a hollow box according to claim 13, by the steps of :
- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a protective parylene layer onto said top side,
- providing a storage phosphor layer having been coated or deposited onto a support from which it is releasable,
- laminating said storage phosphor layer onto said parylene layer, which covers the said hollow box,
- removing said support from which it is releasable,
- covering said phosphor layer with a protective layer.

88. Method for producing an X-ray cassette in form of a hollow box according to claim 14, by the steps of :
- providing a hollow box having plan parallel bottom and top sides,
- vacuum depositing a protective parylene layer onto said top side,
- providing a storage phosphor layer having been coated or deposited onto a support from which it is releasable,
- laminating said storage phosphor layer onto said parylene layer, which covers the said hollow box,
- removing said support from which it is releasable,
- covering said phosphor layer with a protective layer.